

Claims

1. Railway vehicle comprising an underframe (1), in which a mounting pocket (6) is included for the attachment of a towing arrangement (2) having a mounting flange (14), two
5 pairs of axially spaced-apart shoulders (11, 12) being arranged in the mounting pocket (6), between which shoulders the mounting flange (14) is located together with a clamping arrangement (3) with the purpose of clamping the mounting flange against a first pair of shoulders (11), and
10 thereby fixing the towing arrangement in relation to the underframe, c h a r a c t e r i z e d in that the clamping arrangement (3) comprises a form-stiff insert (4) as well as a clamping device (5) acting between the same and the mounting flange (14), which device aims to retreat the
15 mounting flange (14) and the insert (4) from each other, and thereby guarantee clamping of the mounting flange (14) against said first pair of shoulders (11), at the same time as the insert is clamped against the second pair of shoulders (12).

2. Vehicle according to claim 1, c h a r a c t e r i z e d in that the insert (4) includes two laterally spaced-apart, form-stiff spacing elements (18), which are inter-connected
25 via a lower stand (19), which is fastened against the bottom side of the underframe (1).

3. Vehicle according to claim 2, c h a r a c t e r i z e d in that the stand (19) of the insert (4) is composed of, on one hand, a base frame (20) having means (23) for the fastening of the same against the underframe (1), and on the other hand two pairs of uprights (21), which carry the spacing elements (18) on a level above the base frame (20).

35 4. Vehicle according to claim 3, c h a r a c t e r i z e d in that the fastening means consist of elongate holes (23), and screws (47) applied in the same, which screws are tightened in threaded holes (50) in the underframe (1).

5. Vehicle according to any one of the preceding claims, characterized in that the clamping device (5) includes two laterally spaced-apart wedge members (29), which are inter-connected via a lower frame (19') and wedged-in between the insert (4) and the mounting flange (14).

6. Vehicle according to claim 5, characterized in that the frame (19') of the clamping device (5) is composed of, on one hand, a bottom piece (25) having elongate holes (24) for screws (48), and on the other hand two uprights (26), on which the wedge members (29) are carried.

7. Vehicle according to claim 5 or 6, characterized in that the individual wedge member (29) has two opposite wedge surfaces (30, 31), which converge in the direction upward, and are pressed against inclined contact surfaces (51, 51') of the mounting flange (14) and the insert (4), respectively.

8. Vehicle according to any one of the preceding claims, characterized in that the towing arrangement (2) comprises a registration arm (16), which at the rear includes an axial rod (34), which projects through a through hole in a plate (33), which on both sides is surrounded by shock-absorbing spring members (37), which always aim to hold the rod in an starting position in relation to the plate, and against the action of which the rod together with the registration arm are movable.

9. Vehicle according to claim 8, characterized in that the plate (33) is included in a mandrel (15, 40) that is equipped with a cone (41) and inserted into a deformation tube (42) serving as collision protection, more precisely into a wide, front tube section, which via a waist (46) transforms into a thinner, rear tube section, which is deformable by the penetration of the mandrel.

10. Clamping arrangement for the fixation of a towing arrangement (2), equipped with a mounting flange (14), in a mounting pocket (6) included in a vehicle underframe (1) and having two pairs of axially spaced-apart shoulders (11, 12), c h a r a c t e r i z e d in that the same comprises a form-stiff insert (4) as well as a clamping device (5), which is applicable between the insert (4) and the mounting flange (14) of the towing arrangement in order to press apart these and thereby clamp the mounting flange against a first pair of shoulders (11).

11. Clamping arrangement according to claim 10, c h a r a c t e r i z e d in that the insert (4) includes two laterally spaced-apart, form-stiff spacing elements (18), which are inter-connected via a lower stand (19).

12. Clamping arrangement according to claim 11, c h a r a c t e r i z e d in that the stand (19) of the insert (4) is composed of, on one hand, a base frame (20) having means (23) for the fastening of the same against a vehicle underframe, and on the other hand two pairs of uprights (21), which carry the spacing elements (18) on a level above the base frame (20).

13. Clamping arrangement according to claim 12, c h a r a c t e r i z e d in that the fastening means consist of holes (23) intended for the receipt of screws, which holes have an elongate shape in order to enable displacement in relation to provisionally tightened screws.

14. Clamping arrangement according to claim 12 or 13, c h a r a c t e r i z e d in that, between the two spacing elements (18) together with the uprights (21) thereof, stiffening members (22) extend with the purpose of counter-acting deformation of the spacing elements.

15. Clamping arrangement according to any one of claims 11-14, c h a r a c t e r i z e d in that the individual spac-

ing element consists of a flat and long narrow metal body (18).

5 16. Clamping arrangement according to any one of claims 10-15, c h a r a c t e r i z e d in that the clamping device (5) includes two laterally spaced-apart wedge members (29), which are inter-connected via a lower frame (19') having means (24) in order to enable wedging-in of the wedge members between an insert and a mounting flange.

10 17. Clamping arrangement according to claim 16, c h a r a c t e r i z e d in that the frame (19') of the clamping device is composed of, on one hand, a bottom piece (25) having said wedging-in means (24), and on the other hand
15 two uprights (26), on which the wedge members (29) are carried.

20 18. Clamping arrangement according to claim 17, c h a r a c t e r i z e d in that, between the two wedge members (29) together with the uprights (26) thereof, a stiffening member (27) extends with the purpose of counteracting deformation of the wedge members and the uprights, respectively.

25 19. Clamping arrangement according to claim 17 or 18, c h a r a c t e r i z e d in that said wedging-in means consist of holes (24) for the receipt of screws, the holes having an elongate shape in order to enable axial movement of the clamping device in relation to a mounting pocket.

30 20. Clamping arrangement according to claims 16-19, c h a r a c t e r i z e d in that the individual wedge member has two opposite wedge surfaces (30, 31), which converge in the direction upward.